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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/452,802	12/02/1999	DINESH KASHINATH ANVEKAR	YO999-540	1773
30743	7590	09/03/2004	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190			BAYARD, EMMANUEL	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/452,802

Applicant(s)

ANVEKAR ET AL.

Examiner

Emmanuel Bayard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-12 and 14 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is in response to amendment filed on 6/25/04 in which claim 1-3, 5-12 and 14 are pending and claims 4 and 13 are canceled. The applicant amendments have been fully considered but they are moot base on the new ground of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 3718 of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 5-12, 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Bauchot et al U.S. Patent No 6,031,864.

As per claim 1, Bauchot et al discloses a frequency hopping time division duplex indoor wireless communication system comprising: a base station is the same as the claimed (master unit) (see figs. 1a, 1b element 26 or 28 and col.2, lines 37-38) having a microprocessor (see fig. 2 element 56 and col.4, line 17 and col.8, lines 34-41) is functionally equivalent to the claimed

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(processor) and a first frequency selection unit (see figs. 4a , 4b elements F_i or F_{i+1} and col.2, lines 40-60 and col.4, lines 65-67 and col.5, lines 1-40 and col.7, lines 45-55) for finding a current frequency on which to transmit and receive (transceiver see figs. 1b, 2 elements 36 or 44) during the current time slot and at least a second frequency selection unit (see figs. 4a, 4b elements SF_i or F_{j+1} and col.5, lines 44-67 and col.6, lines 1-67 and col.8, lines 47-67) interfaced with said processor (see fig.2 element 60) to select frequencies to be used in future time slots; and a plurality mobile stations (see fig.1a elements 10, 12, 14, 16) communicating with said master unit (element 26 or 28).

As per claim 2, the time division duplex of Bauchot et al includes logic units to perform frequency hop selection (see col.2, lines 40-61 and col.4, lines 60-67) according to predetermined standards.

As per claim 3, the time division duplex of Bauchot et al inherently includes wherein the processor (see fig.56) in the master unit (see 26 or 28) interfaced to the second frequency selection unit corporate such that a frequency corresponding to a future time slot is obtained by the processor by providing binary information about a Pico-cell (see col.8, lines 44-55) related address bits and clock bits corresponding to the time slot (see figs. 4a, 4b elements SF_i or F_{j+1} and col.5, lines 44-67 and col.6, lines 1-67 and col.8, lines 47-67).

As per claim 5, Bauchot et al discloses a frequency hopping indoor wireless communication system comprising: a base station is the same as the claimed (master unit) (see figs. 1a, 1b element 26 or 28 and col.2, lines 37-38), said base station (master unit) (26) having a plurality mobile stations (see fig.1a elements 10, 12, 14, 16) is the same as the claimed (a plurality of link state counters) $C(i,j)$, wherein the states of wireless link between the master unit

and a slave unit are recorded in link state counters provided one for each frequency of communication f_l between the master and the slave (see fig.1a).

As per claim, 6 Bauchot inherently teaches the link state counter are initially reset to zero (see co.8, line 46), a counter is incremented by one (see col.8, line 49) when the master unit finds that a current transmission/reception with reference to slave unit frequency failed, the counter is reset to zero when the current transmission/reception with reference to slave unit is successful (see col.8, lines 40-67 and col.9, lines 1-30).

As per claim, 7, Bauchot et al inherently teach a transmission attempt is made to slave unit if a value of the counter is less than or equal to a threshold and no transmission is made if the value of the counter is greater than the threshold (see col.8, lines 45-67 and col.9, lines 1-30).

As per claim 8, Bauchot et al discloses a base station is the same as the claimed (master unit) (see figs. 1a, 1b element 26 or 28 and col.2, lines 37-38) having a microprocessor (see fig. 2 element 56 and col.4, line 17 and col.8, lines 34-41) is functionally equivalent to the claimed (processor) and a first frequency selection unit (see figs. 4a, 4b elements F_i or F_{i+1} and col.2, lines 40-60 and col.4, lines 65-67 and col.5, lines 1-40 and col.7, lines 45-55) for finding a current frequency on which to transmit and receive (transceiver see figs. 1b, 2 elements 36 or 44) during the current time slot and at least a second frequency selection unit (see figs. 4a, 4b elements SF_i or F_{j+1} and col.5, lines 44-67 and col.6, lines 1-67 and col.8, lines 47-67) interfaced with said processor (see fig.2 element 60) to select frequencies to be used in future time slots; a plurality mobile stations (see fig.1a elements 10, 12, 14, 16) is the same as the claimed (a plurality of link state counters) $C(i,j)$, wherein the states of wireless link between the master unit and a slave unit are recorded in link state counters provided one for each frequency

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of communication f1 between the master and the slave (see fig.1a); before transmission to slave unit, the master unit obtains the frequencies corresponding to time slots which will be encountered in the immediate future is inherently taught by Bauchot (see col.2, lines 40-67 and col.5, lines 15-40); if the link state history counter for a scheduled slave unit at an expected transmission frequency indicates that a transmission attempt can be made, the master proceed to transmit to the slave at an appropriate packet size is inherently taught by Bauchot (see specification and col.8, lines 40-67 and col.9, lines 1-30); the master unit tries to choose another active slave, if any transmission fails is inherently taught by Bauchot (see specification and col.8, lines 40-67 and col.9, lines 1-30); the master unit records loss and gain of service by the slave unit when transmission to the slave units takes place in an order different from the regular scheduling is inherently taught by Bauchot (see specification and col.8, lines 40-67 and col.9, lines 1-30); if the link state history counter values of all active slave units are above a threshold, the master unit chooses a slave unit whose link state counter has a lower value is inherently taught by Bauchot (see specification and col.8, lines 40-67 and col.9, lines 1-30).

As per claim 9, Bauchot et al inherently teaches all the limitations f) and g) (see rejection of the above claims 1-8).

As per claims 10 and 11, Bauchot inherently teaches all the claimed limitations (see rejection of the above claims 1-8).

As per claim 12, Bauchot et al discloses a frequency hopping time division duplex indoor wireless communication system comprising: a base station is the same as the claimed (master unit) (see figs. 1a, 1b element 26 or 28 and col.2, lines 37-38) and a plurality mobile stations (see fig.1a elements 10, 12, 14, 16) is the same as the claimed (slave units); a second level frequency

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look ahead is preformed by the master unit even before a packet from addresses slave unit is received (see figs. 4a, 4b elements SF_i or F_{j+1} and col.5, lines 44-67 and col.6, lines 1-67 and col.8, lines 47-67), the second level look ahead is performed by the master unit to determine the slave units and packet sizes to be used next corresponding to different sizes of packet that might be transmitted by an address slave unit (see col.5, lines 45-67 and col.6, lines 1-67 and col.7, lines 1-67 and col.8, lines 5-67 and col.9, lines 1-30).

As per claim 14, the time division duplex of Bauchot et al includes an expected state of wireless links with reference to interference (see fig. 1a and col5, line 48).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saito U.S. Patent No 5,914,497 teaches a mobile radio communication.

Lenzo et al U.S. Patent No 6,587,444 B1 teaches fixed frequency time division duplex..

Saga et al U.S. Patent No 5,781,582 teaches a frequency agile transceiver.

Yamauchi et al U.S. Patent No 6,295,310 B1 teaches a mobile communication system.

Burdick et al U.S. Patent No 6,424,820 B1 teaches an inductively coupled wireless system.

Banz et al U.S. patent No 5,394,433 teaches a frequency hopping.

Ito U.S. patent No 5,276,686 teaches a mobile radio communication system.

Schilling Pub No 2001/0040878 A1 teaches a channel sounding.

Lu et al U.S. patent No 6,580,924 B1 teaches a wireless co-tenant base station.

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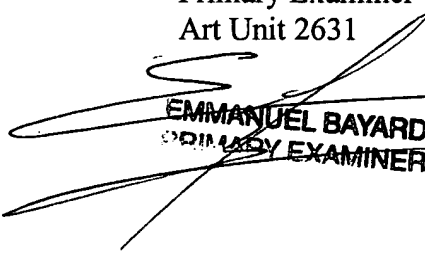
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/28/04

Emmanuel Bayard
Primary Examiner
Art Unit 2631


EMMANUEL BAYARD
PRIMARY EXAMINER